

Exhibit 300: Capital Asset Plan and Business Case Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview

1. **Date of Submission:** 2011-02-25
2. **Agency:** 026
3. **Bureau:** 00
4. **Name of this Investment:** ESMD - Integrated Collaborative Environment
5. **Unique Project (Investment) Identifier (UPI):** 026-00-01-03-01-2411-00
6. **What kind of investment will this be in FY 2012?:** Operations and Maintenance
 - Planning
 - Full Acquisition
 - Operations and Maintenance
 - Mixed Life Cycle
 - Multi-Agency Collaboration
7. **What was the first budget year this investment was submitted to OMB?** FY2007

8.

- a. **Provide a brief summary of the investment and justification, including a brief description of how this closes in part or in whole an identified agency performance gap, specific accomplishments expected by the budget year and the related benefit to the mission, and the primary beneficiary(ies) of the investment.**

The Integrated Collaborative Environment (ICE) Program provides a common repository of the authoritative data for Exploration System Mission Directorate (ESMD). ICE is a web-centric environment which will be used by industry, academia and government for sharing, collaborating, integrating, accessing and controlling management information and product data definition for all ESMD products. The scope of ICE includes all program and product information, including: all requirement, schedule, risk and configuration management information to all engineering design, analysis and test. The objectives of the ICE Program are to: 1. Provide the laboratories, Centers, Directorates, academic institutions, prime contractors and subcontractors a single web portal through which they can store, manage and find all directorate program and mission related data, information and products. 2. Link all such related program and product data together, so the relationships between them can be quickly navigated both by end users and other systems. 3. Provide a common implementation approach, including documentation, engagement and design models from which products are configured and delivered to the Customer. 4. To automate ESMD processes; particularly around the data produced and used in ESMD processes. 5. Implement ICE as an integration of existing COTS applications; in order to reduce risks and total lifecycle costs. Provide value throughout the ESMD Program, implementing each project solution as series of production systems in short (60-90 day) intervals. 6. Base solution delivery on business needs and opportunities and business-driven prioritization. → 7. Accessibility from anywhere in the world including the International Space Station (ISS) and the Space Shuttle Orbiter Performance gaps ICE closes: Improved Mission Assurance and Mission Safety achieved by availability of all data related to ESMD products during ESMD operations. Reduced ESMD Program/Project Performance Risk by providing better program visibility, control and decisions throughout the program life cycle. Compresses ESMD Program/Project Delivery Schedules by providing a single collaboration environment enabling the compression of numerous critical process life cycles. Reduces ESMD Program/Project Cost by improving communication amongst the various systems and sub systems along for faster incorporation of designs and completion of tasks.

- b. **Provide any links to relevant websites that would be useful to gain additional information on the**

investment including links to GAO and IG reports.

Title	Link
NONE	

9.

- a. Provide the date of the Agency's Executive/Investment Committee approval of this investment.
2010-09-02
- b. Provide the date of the most recent or planned approved project charter. 2010-08-13

10. Contact information?

- a. Program/Project Manager Name: *
Phone Number: *
Email: *
- b. Business Function Owner Name (i.e. Executive Agent or Investment Owner): Beverly Hamilton
Phone Number: *
Email: *

11. What project management qualifications does the Project Manager have? (choose only one per FAC-P/PM or DAWIA): Project manager has been validated according to FAC-P/PM or DAWIA criteria as qualified for this investment.

- Project manager has been validated according to FAC-P/PM or DAWIA criteria as qualified for this investment.
- Project manager qualifications according to FAC-P/PM or DAWIA criteria is under review for this investment.
- Project manager assigned to investment, but does not meet requirements according to FAC-P/PM or DAWIA criteria.
- Project manager assigned but qualification status review has not yet started.
- No project manager has yet been assigned to this investment.

Section B: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.B.1: Summary of Funding
(In millions of dollars)

(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 and earlier	PY 2010	CY 2011 (CY Continuing Resolution)	BY 2012	BY+1 2013	BY+2 2014	BY+3 2015	BY+4 and beyond	Total
Planning:	*	*	*	*	*	*	*	*	*
Acquisition:	*	*	*	*	*	*	*	*	*
Planning & Acquisition Government FTE Costs	*	*	*	*	*	*	*	*	*
Subtotal Planning & Acquisition(DME):	*	*	*	*	*	*	*	*	*
Operations & Maintenance:	*	*	*	*	*	*	*	*	*
Disposition Costs (optional):	*	*	*	*	*	*	*	*	*
Operations, Maintenance, Disposition Government FTE Costs	*	*	*	*	*	*	*	*	*
Subtotal O&M and Disposition Costs (SS):	*	*	*	*	*	*	*	*	*
TOTAL FTE Costs	*	*	*	*	*	*	*	*	*
TOTAL (not including FTE costs):	*	*	*	*	*	*	*	*	*
TOTAL (including FTE costs):	*	*	*	*	*	*	*	*	*
Number of FTE represented by	*	*	*	*	*	*	*	*	*

Table I.B.1: Summary of Funding
(In millions of dollars)

(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 and earlier	PY 2010	CY 2011 (CY Continuing Resolution)	BY 2012	BY+1 2013	BY+2 2014	BY+3 2015	BY+4 and beyond	Total
Costs:									

2. Insert the number of years covered in the column “PY-1 and earlier”: 1

3. Insert the number of years covered in the column “BY+4 and beyond”: *

4. If the summary of funding has changed from the FY 2011 President’s Budget request, briefly explain those changes:

*

Section C: Acquisition/Contract Strategy (All Capital Assets)

1.

Table I.C.1 Contracts Table

Contract Status	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	Solicitation ID	Alternative financing	EVM Required	Ultimate Contract Value (M)	Type of Contract/Task Order (Pricing)	Is the contract a Performance Based Service Acquisition (PBSA)?	Effective date	Actual or expected End Date of Contract/Task Order	Extent Completed	Short description of acquisition
Awarded		NNM04AA02C		03HAW001	*	*	\$32.0	Cost Plus Award Fee	Y	2004-01-01	2012-03-31	Y	UNIFIED NASA INFORMATION TECHNOLOGY SERVICES (UNITES)
Awarded		NNH06CC93B			*	*	\$10.0	Cost Plus Award Fee	N	2006-06-01		Y	the contractor shall provide integrated IT systems engineering and operations, and it-related management support services, except for services provided by odin to all mission directorates and mission support offices at nasa hq

Table I.C.1 Contracts Table

Contract Status	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	Solicitation ID	Alternative financing	EVM Required	Ultimate Contract Value (M)	Type of Contract/Task Order (Pricing)	Is the contract a Performance Based Service Acquisition (PBSA)?	Effective date	Actual or expected End Date of Contract/Task Order	Extent Completed	Short description of acquisition
Awarded		NNH06CD66D	NNH06CC98Z		*	*	\$15.0	Firm Fixed Price	Y	2006-06-01	2011-05-31	Y	EFFORT DESCRIBED IN STATEMENT OF WORK
Awarded		NNM11AA02C			*	*	\$0.0	Firm Fixed Price	Y	2011-02-01		Y	Enterprise Applications Service Technologies (EAST) Contract

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

*

3.

- a. Has an Acquisition Plan been developed? If yes, please answer the questions that follow *
- b. Does the Acquisition Plan reflect the requirements of FAR Subpart 7.1 *
- c. Was the Acquisition Plan approved in accordance with agency requirements *
- d. If "yes," enter the date of approval? *
- e. Is the acquisition plan consistent with your agency Strategic Sustainability Performance Plan? *
- f. Does the acquisition plan meet the requirements of EOs 13423 and 13514? *
- g. If an Acquisition Plan has not been developed, provide a brief explanation.

*

Part II: IT Capital Investments

Section A: General

1.
 - a. Confirm that the IT Program/Project manager has the following competencies: configuration management, data management, information management, information resources strategy and planning, information systems/network security, IT architecture, IT performance assessment, infrastructure design, systems integration, systems life cycle, technology awareness, and capital planning and investment control. yes
 - b. If not, confirm that the PM has a development plan to achieve competencies either by direct experience or education.
2. Describe the progress of evaluating cloud computing alternatives for service delivery to support this investment. the investment is already in production. cloud computing is not being evaluated at this time. we are awaiting the agency data center and cloud computing strategy. this investment is managed under an agency it contract.
3. Provide the date of the most recent or planned Quality Assurance Plan
4.
 - a. Provide the UPI of all other investments that have a significant dependency on the successful implementation of this investment.
 - b. If this investment is significantly dependent on the successful implementation of another investment(s), please provide the UPI(s).
5. An Alternatives Analysis must be conducted for all Major Investments with Planning and Acquisition (DME) activities and evaluate the costs and benefits of at least three alternatives and the status quo. The details of the analysis must be available to OMB upon request. Provide the date of the most recent or planned alternatives analysis for this investment. 2008-06-01
6. Risks must be actively managed throughout the lifecycle of the investment. The Risk Management Plan and risk register must be available to OMB upon request. Provide the date that the risk register was last updated. 2010-09-09

Section B: Cost and Schedule Performance

Table II.B.1. Comparison of Actual Work Completed and Actual Costs to Current Approved Baseline:

Description of Activity	DME or SS	Agency EA Transition Plan Milestone Identifier	Planned Cost (\$M)	Actual Cost (\$M)	Planned Start Date	Actual Start Date	Planned Completion Date	Actual Completion Date	Planned Percent Complete	Actual Percent Complete
IMP/IMS online	DME	*	\$7.4	\$7.5	2005-03-05	2005-03-04	2005-07-13	2005-07-13	100.00%	100.00%
Document Management	DME	*	\$7.4	\$6.3	2004-12-05	2004-12-06	2005-09-15	2005-09-15	100.00%	100.00%
Procurement Eval System	DME	*	\$6.1	\$5.5	2005-06-21	2005-07-23	2005-11-12	2005-11-11	100.00%	100.00%
Windchill Version Upgrade	DME	*	\$5.4	\$5.2	2005-05-17	2005-05-14	2006-01-19	2006-01-19	100.00%	100.00%
Parts Management System Online	DME	*	\$3.2	\$3.1	2005-09-14	2005-09-14	2006-05-12	2006-05-12	100.00%	100.00%
Services Bus Online	DME	*	\$4.9	\$4.6	2005-12-12	2005-12-12	2006-08-01	2006-08-14	100.00%	100.00%
Change Management	DME	*	\$4.1	\$4.0	2006-02-14	2006-02-14	2006-08-19	2006-08-19	100.00%	100.00%
System Infrastructure 2004	DME	*	\$4.5	\$2.7	2004-10-01	2004-10-01	2006-09-30	2006-09-30	100.00%	100.00%
Portal Redesign	DME	*	\$4.1	\$4.1	2006-05-16	2006-05-16	2006-09-30	2006-09-30	100.00%	100.00%
Primaveria EVM/Schedule integration	DME	*	\$2.1	\$2.0	2006-04-03	2006-04-03	2006-11-03	2006-11-03	100.00%	100.00%
Cradle License Agreement	DME	*	\$0.6	\$0.6	2007-10-01	2006-07-01	2007-10-30	2007-09-30	100.00%	100.00%
Executive Dashboard	DME	*	\$0.4	\$0.4	2007-08-01	2007-08-01	2008-09-30	2008-01-31	100.00%	100.00%
Application and Workflow Development	DME	*	\$6.5	\$6.5	2007-10-01	2007-10-01	2008-09-30	2008-08-01	100.00%	100.00%
System Infrastructure	DME	*	\$2.0	\$2.0	2007-10-01	2007-10-01	2008-09-30	2008-08-01	100.00%	100.00%
New Software Lic	SS	*	\$0.3	\$0.1	2007-10-01	2007-10-01	2008-09-30	2008-07-31	100.00%	100.00%

Table II.B.1. Comparison of Actual Work Completed and Actual Costs to Current Approved Baseline:

Description of Activity	DME or SS	Agency EA Transition Plan Milestone Identifier	Planned Cost (\$M)	Actual Cost (\$M)	Planned Start Date	Actual Start Date	Planned Completion Date	Actual Completion Date	Planned Percent Complete	Actual Percent Complete
Operational Support	SS	*	\$0.5	\$0.5	2007-10-01	2007-10-01	2008-09-30	2008-08-01	100.00%	100.00%
Software Lic. Renewals and Maintenance	SS	*	\$4.7	\$4.7	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
Portal Software Updates and Development	DME	*	\$0.4	\$0.4	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
Service Bus Integration	DME	*	\$2.0	\$1.7	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
Windchill and Change Mgmt Enhancements	DME	*	\$1.0	\$0.5	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
HSPD-12	DME	*	\$0.5	\$0.0	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
Active Risk Manager Updates and Development	SS	*	\$0.4	\$0.4	2007-10-01	2007-10-01	2008-09-30	2008-09-30	100.00%	100.00%
Application and Workflow Development 2	DME	*	\$6.0	\$5.5	2007-10-01	2007-10-01	2009-09-30	2009-08-31	100.00%	100.00%
System Infrastructure 2	DME	*	\$1.4	\$1.1	2007-05-01	2007-05-01	2009-09-30	2009-08-31	100.00%	100.00%
Service Bus Integration w/ Applications	DME	*	\$1.1	\$1.1	2008-10-01	2006-10-01	2009-09-30	2009-08-31	100.00%	100.00%
Windchill and Change Management Enhancements	DME	*	\$0.5	\$0.5	2007-07-01	2007-07-01	2009-09-30	2009-08-31	100.00%	100.00%
Active Risk Manager Updates	SS	*	\$0.4	\$0.4	2006-10-01	2006-10-01	2009-09-30	2009-08-14	100.00%	100.00%
Executive Dashboard 2	DME	*	\$0.3	\$0.3	2007-05-01	2007-05-01	2009-09-30	2009-02-28	100.00%	100.00%
Portal Software Updates	DME	*	\$0.4	\$0.4	2008-10-01	2008-10-01	2009-09-30	2009-08-31	100.00%	100.00%

Table II.B.1. Comparison of Actual Work Completed and Actual Costs to Current Approved Baseline:

Description of Activity	DME or SS	Agency EA Transition Plan Milestone Identifier	Planned Cost (\$M)	Actual Cost (\$M)	Planned Start Date	Actual Start Date	Planned Completion Date	Actual Completion Date	Planned Percent Complete	Actual Percent Complete
Software Lic. and Support	SS	*	\$2.7	\$2.7	2008-10-01	2008-10-01	2009-09-20	2009-08-31	100.00%	100.00%
FY09 Software Lic. Renewals and Maintenance	SS	*	\$5.3	\$4.0	2008-10-01	2008-10-01	2009-09-30	2009-08-31	100.00%	100.00%
FY09 Operational Support	SS	*	\$2.0	\$2.0	2008-10-01	2008-10-01	2009-09-30	2009-08-31	100.00%	100.00%
Disaster Recovery Planning	DME	*	\$0.2	\$0.2	2007-10-01	2007-10-01	2009-09-30	2009-08-31	100.00%	100.00%
FY10 Operational Support	SS	*	\$18.9	\$17.0	2009-10-01	2009-10-01	2010-09-30	2010-09-30	100.00%	100.00%
FY11 Operational Support	SS	*	\$6.5	\$6.5	2010-10-01	2010-10-01	2011-05-01		100.00%	99.00%
FY 12 Operational and Support Q1	SS	*	*	*	2011-10-01	*	2012-12-31	*	*	*
FY12 Operational and Support Qtr 2	SS	*	*	*	2012-01-01	*	2012-03-31	*	*	*
FY 12 Operational and Support Q3	SS	*	*	*	2012-04-01	*	2012-06-30	*	*	*
FY 12 Operational and Support Q4	SS	*	*	*	2012-07-01	*	2012-09-30	*	*	*
FY 12 Hardware Refresh	SS	*	*	*	2012-05-31	*	2012-09-30	*	*	*
FY11 Operational Support	SS	*	*	*	2011-05-02	*	2011-09-30	*	*	*

2. If the investment cost, schedule, or performance variances are not within 10 percent of the current baseline, provide a complete analysis of the reasons for the variances, the corrective actions to be taken, and the most likely estimate at completion. While variances are low to date, Actual Cost to Planned Cost

are reviewed monthly by the Program Director and Business Manager. A variance explanation is provided by each project. At this time, no corrective actions are needed. Should there be a change in exploration systems program direction that results in a change in milestones this would require a rebaseline of milestones the following FY in order to provide better management metric.

3. For mixed lifecycle or operations and maintenance investments an Operational Analysis must be performed annually. Operational analysis may identify the need to redesign or modify an asset by identifying previously undetected faults in design, construction, or installation/integration, highlighting whether actual operation and maintenance costs vary significantly from budgeted costs, or documenting that the asset is failing to meet program requirements. The details of the analysis must be available to OMB upon request. Insert the date of the most recent or planned operational analysis.

4. Did the Operational analysis cover all 4 areas of analysis: Customer Results, Strategic and Business Results, Financial Performance, and Innovation?

Section C: Financial Management Systems

Table II.C.1: Financial Management Systems			
System(s) Name	System acronym	Type of Financial System	BY Funding

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Section D: Multi-Agency Collaboration Oversight (For Multi-Agency Collaborations only)

Table II.D.1. Customer Table:	
Customer Agency	Joint exhibit approval date
NONE	

Table II.D.2. Shared Service Providers		
Shared Service Provider (Agency)	Shared Service Asset Title	Shared Service Provider Exhibit 53 UPI (BY 2011)
*	*	*

Table II.D.3. For IT Investments, Partner Funding Strategies (\$millions):							
Partner Agency	Partner exhibit 53 UPI (BY 2012)	CY Monetary Contribution	CY “In-Kind” Contribution	CY Fee-for-Service	BY Monetary Contribution	BY “In-Kind” Contribution	BY Fee-for-Service
NONE							

Table II.D.4. Legacy Systems Being Replaced		
Name of the Legacy Investment of Systems	Current UPI	Date of the System Retirement
*	*	*

Section E: Performance Information

Table I.E.1a. Performance Metric Attributes

Measurement Area (For IT Assets)	Measurement Grouping (For IT Assets)	Measurement Indicator	Reporting Frequency	Unit of Measure	Performance Measure Direction	Baseline	Year Baseline Established for this measure (Origination Date)
Customer Results	Customer Training	Attendance Percentage	annual	Attendance Percentage	Increase	Percentage of registered users against users who have attended ICE user training	2007-09-30
			Fiscal Year	Target	Actual Results	Target "Met" or "Not Met"	Last Updated
			2007	Raise to 40%	25%	Not Met	2010-09-17
			2008	Raise to 45%	25%	Not Met	2010-09-17
			2009	Raise to 50%	50%	Met	2010-09-17
			2010	Raise to 55%			2010-09-17
			2011	Raise to 60%			2010-09-17
			2012	Raise to 65%			2010-09-17
Processes and Activities	Participation	Participation-Percentage of Exploration workers actively using the ICE environment	annual	Participation Percentage	Increase	Participation-Percentage of Exploration workers actively using the ICE environment	2007-09-30
			Fiscal Year	Target	Actual Results	Target "Met" or "Not Met"	Last Updated
			2007	Improve to 75%	70%	Not Met	2010-09-17

Mission and Business Results	Information Management	Percentage of Data Availability	2008	Maintain 75%	75%	Met	2010-09-17
			2009	Improve to 80%	80%	Met	2010-09-17
			2010	Improve to 85%			2010-09-17
			2011	Maintain 85%			2010-09-17
			2012	Improve to 90%			2010-09-17
			annual	Percent Data Availability	Increase	Percentage of ESMD data available through ICE	2007-09-30
			Fiscal Year	Target	Actual Results	Target "Met" or "Not Met"	Last Updated
			2007	Maintain 70%	70%	Met	2010-09-17
			2008	Maintain 70%	70%	Met	2010-09-17
			2009	Maintain 70%	70%	Met	2010-09-17
			2010	Maintain 70%			2010-09-17
			2011	Maintain 70%			2010-09-17
			2012	Maintain 70%			2010-09-17
Technology	Accessibility	Percentage of registered users accessing the system per hour	annual	Percentage of Registered Users	Increase	Percentage of registered users accessing the system per hour	2007-09-30
			Fiscal Year	Target	Actual Results	Target "Met" or "Not Met"	Last Updated

2007	Raise to 45%	45%	Met	2010-09-17
2008	Raise to 50%	35%	Not Met	2010-09-17
2009	Raise to 55%	60%	Met	2010-09-17
2010	Maintain 55%			2010-09-17
2011	Maintain 55%			2010-09-17
2012	Maintain 55%			2010-09-17

* - Indicates data is redacted.